

Amendments to the claims:

Please amend claims 1 and 10 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the 5 application.

1 1. (currently amended) A method of enhancing an input digital image having
2 color features comprising:

3 converting said input digital image to a binary image of first and
4 second type pixels such that pixels of said input digital image that define said color
5 features are substantially converted to said first type pixels of said binary image;

6 changing the resolution of said binary image with respect to the
7 number of pixels to derive a modified binary image; and

8 selectively inserting colors into pixels of said modified binary image to
9 produce an output digital image having modified color features that differ in
10 resolution with said color features of said input digital image.

1 2. (original) The method of claim 1 wherein said step of converting said input
2 digital image to said binary image includes comparing color components of said input
3 digital image with predefined thresholds to classify said pixels of said input digital
4 image as either said first type pixels or said second type pixels of said binary image.

1 3. (original) The method of claim 2 wherein said step of comparing said color
2 components of said input digital image includes classifying said pixels of said input
3 digital image having at least a single color component that exceeds a corresponding
4 predefined threshold as said first type pixels.

1 4. (original) The method of claim 1 wherein said step of converting said input
2 digital image to said binary image includes dividing said pixels of said input digital
3 image into first and second groups based on color differences of said pixels of said
4 input digital image.

1 5. (original) The method of claim 4 wherein said step of converting said input
2 digital image to said binary image further includes converting said pixels of said input
3 digital image that belong to a smaller group of said first and second groups to said
4 first type pixels of said binary image and converting said pixels of said input digital
5 image that belong to a larger group of said first and second groups to said second type
6 pixels of said binary image.

1 6. (original) The method of claim 1 wherein said step of selectively inserting said
2 colors into said pixels of said modified binary image includes inserting only colors
3 from said input digital image into said pixels of said modified binary image.

1 7. (original) The method of claim 6 wherein said step of selectively inserting said
2 colors into said pixels of said modified binary image includes:
3 comparing a particular pixel of said modified binary image with a
4 corresponding pixel of said binary image;
5 determining whether said particular pixel of said modified binary
6 image substantially matches said corresponding pixel of said binary image; and
7 inserting the color of a pixel of said input digital image from which
8 said corresponding pixel of said binary image was derived into said particular pixel.

1 8. (original) The method of claim 7 wherein said selectively inserting said colors
2 into said pixels of said modified binary image further includes:
3 comparing said particular pixel of said modified binary image with
4 neighboring pixels of said corresponding pixel of said binary image in a predefined
5 sequence, if said particular pixel and said corresponding pixel do not substantially
6 match; and
7 inserting the color of a pixel of said input digital image that
8 corresponds to a specific pixel selected from said neighboring pixels of said binary
9 image that substantially matches said particular pixel of said modified binary image
10 into said particular pixel, said specific pixel being a selected pixel of said neighboring
11 pixels in said predefined sequence that substantially matches said particular pixel of
12 said modified binary image.

1 9. (original) The method of claim 1 wherin said step of changing the resolution
2 of said binary image includes scaling said binary image to a higher resolution binary
3 image and smoothing edges of features of said higher resolution binary image that
4 correspond to said color features of said input digital image, said scaling and
5 smoothing being performed using a template matching technique.

1 10. (currently amended) A system for enhancing an input digital image having
2 color fcatures comprising:

3 means for converting said input digital image to a binary image of first
4 and second type pixels such that pixels of said input digital image that define said
5 color features are substantially converted to said first type pixels of said binary image;

6 means for changing the resolution of said binary image with respect to
7 the number of pixels to derive a modified binary image; and

8 means for selectively inserting colors into pixels of said modified
9 binary image to produce an output digital image having modified color features that
10 differ in resolution with said color features of said input digital image.

1 11. (original) The system of claim 10 wherein said converting means is configured
2 to compare color components of said input digital image with predefined thresholds to
3 classify said pixels of said input digital image as either said first type pixels or said
4 second type pixels of said binary image.

1 12. (original) The system of claim 10 wherein said converting means is configured
2 to divide said pixels of said input digital image into first and second groups based on
3 color diffcrences of said pixels of said input digital image.

1 13. (original) The system of claim 12 wherein said converting means is further
2 configured to convert said pixels of said input digital image that belong to a smaller
3 group of said first and second group to said first type pixels of said binary image and
4 to convert said pixels of said input digital image that belong to a larger group of said
5 first and second groups to said second type pixels of said binary image.

1 14. (original) The system of claim 10 wherein said selectively inserting means is
2 configured to execute a plurality of steps comprising:

3 comparing a particular pixel of said modified binary image with a
4 corresponding pixel of said binary image;

5 determining whether said particular pixel of said modified binary
6 image substantially matches said corresponding pixel of said binary image; and

7 inserting the color of a pixel of said input digital image from which
8 said corresponding pixel of said binary image was derived into said particular pixel.

1 15. (original) The system of claim 14 wherein said selectively inserting means is
2 further configured to execute steps comprising:

3 comparing said particular pixel of said modified binary image with
4 neighboring pixels of said corresponding pixel of said binary image in a predefined
5 sequence, if said particular pixel and said corresponding pixel do not substantially
6 match; and

7 inserting the color of a pixel of said input digital image that
8 corresponds to a specific pixel selected from said neighboring pixels of said binary
9 image that substantially matches said particular pixel of said modified binary image
10 into said particular pixel, said specific pixel being a selected pixel of said neighboring
11 pixels in said predefined sequence that substantially matches said particular pixel of
12 said modified binary image.

1 16. (original) A method of enhancing an input digital image having color features
2 comprising:

3 converting said input digital image to a binary image of first and
4 second type pixels such that pixels of said input digital image that belong to said color
5 features are substantially converted to said first type pixels of said binary image;

6 scaling said binary image to derive a modified binary image, including
7 enhancing binary features of said modified binary image that represent said color
8 features of said input digital image; and

9 selectively inserting colors into said pixels of said modified binary
10 image, said colors being derived from original colors of said input digital image.

1 17. (original) The method of claim 16 wherein said step of converting said input
2 digital image to said binary image includes determining whether any color component
3 of said input digital image exceeds a predefined threshold, said determination being
4 used to classify said pixels of said input digital image as either said first type pixels or
5 said second type pixels of said binary image.

1 18. (original) The method of claim 16 wherein said step of converting said input
2 digital image to said binary image includes separating said pixels of said input digital
3 image to first and second groups based on spatial locations of said pixels of said input
4 digital image on a color space.

1 19. (original) The method of claim 18 wherein said step of converting said input
2 digital image to said binary image further includes converting said pixels of said input
3 digital image that belong to a smaller group of said first and second groups to said
4 first type pixels of said binary image and converting said pixels of said input digital
5 image that belong to a larger group of said first and second groups to said second type
6 pixels of said binary image.

1 20. (original) The method of claim 16 wherein said step of selectively inserting
2 said colors into said pixels of said modified binary image includes:

3 comparing a particular pixel of said modified binary image with a
4 corresponding pixel of said binary image;

5 determining whether said particular pixel of said modified binary
6 image matches said corresponding pixel of said binary image with respect to pixel
7 values; and

8 inserting the color of a pixel of said input digital image from which
9 said corresponding pixel of said binary image was derived into said particular pixel.

1 21. (original) The method of claim 20 wherein said selectively inserting said
2 colors into said pixels of said modified binary image further includes:
3 comparing said particular pixel of said modified binary image with
4 neighboring pixels of said corresponding pixel of said binary image in a predefined
5 sequence, if said particular pixel and said corresponding pixel do not match; and
6 inserting the color of a pixel of said input digital image that
7 corresponds to a specific pixel selected from said neighboring pixels of said binary
8 image that matches said particular pixel of said modified binary image into said
9 particular pixel, said specific pixel being a selected pixel of said neighboring pixels in
10 said predefined sequence that matches said particular pixel of said modified binary
11 image.